

Application No.:10/074,814

Reply to Office Action of June 23, 2005

Remarks

Claims 19-21 are pending in this application. All have been rejected.

Claim 19 has been amended to clarify that the foam produced is a *slow draining* foam. That is, "water drains from the foam sufficiently slowly so as to avoid excessive heating of the underlying acidic or caustic spill with consequent rapid breaking-up of the foam blanket." Specification as filed, page 4, lines 5-8. Such heat could be produced, for example, from the neutralization reaction or the heat of solution. Furthermore, the stabilized foam blanket with a alkaline or acidic medium incorporated into the foam bubble matrix acts as an in-situ scrubber to neutralize vapors as they work their way up through the foam blanket.

Slow-draining, pH-tolerant, non-neutral pH foam prepared from aqueous foamable concentrates ... provide significant advantage in the treatment of ... non-neutral pH hazardous materials spills, such as fuming acids and bases. ... [T]hese non-neutral pH foams are believed to slowly neutralize the spill by the stabilized collapse or breakdown of the foam deployed over the spill, and also effectively to scrub any fumes from the spill which travel through the foam blanket. An additional advantage in the treatment of the hazardous material spill is vapor suppression provided by the substantially continuous foam blanket deployed over the spill. Since the stabilized [*i.e.*, slow] collapse of the foam does not excessively increase the temperature of the spill by heat released from the neutralization reaction, a more continuous foam blanket is maintained along with consequent reduction in breaches or breaks in the foam blanket through which vapor can escape.

Specification as filed, page 6, lines 8-20.

Grawe relates to a cleanup process for neutralizing acidic or basic residue remaining after paint stripping. Grawe, column 1, lines 15-20. Grawe teaches a process for cleaning a contaminated surface using a liquid-state composition that, upon application to the surface and interaction with the contaminant, solidifies into a solid-state matrix. Grawe, Abstract. Grawe does not teach or suggest application of a slow-draining foam.

Stern teaches the treatment of hazardous waste sites such as land burial dumps, impoundments and lagoons (Stern, column 10, lines 4-9), by sealing such a site so as

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suppress the emission, spreading, or release of gases, vapors, odors, dusts, or liquids (Stern, column 2, lines 66-68), but Stern does not teach or suggest treating a *non-neutral pH* hazardous material spill. Use of pH modifiers in Stern appears to be to control the formation of the gel or foam ("the particular pH modifier to be used for a particular foam system being dependent on the particular polyvalent ionic complexing agent chosen and the amount of pH modifier to be used being dependent of the pH necessary for the formation of the foam and the type thereof...." Stern, column 7, lines 29-34).

Further, Stern's viscous foam is akin to a foam rubber that blocks the release of vapors through the creation of a physical barrier. In the present invention, on the other hand, it is desirable that the vapors work their way up into the foam blanket so that they may be neutralized by the neutralizing agent employed in the creation of the foam bubbles.

Neither Stern nor Grawe, separately or in combination, teach or suggest Applicant's invention as recited in amended Claim 19.

Applicant believes that the present application is in condition for allowance. A Notice of Allowance is respectfully solicited. Should any questions arise, the Examiner is encouraged to contact the undersigned.

Authorization is hereby granted to charge any required fee(s) for this submittal to Deposit Account No. 19-1346. Please charge any additional fees, or credit any overpayments, which may be due in this matter, to Deposit Account No. 19-1346.

Respectfully submitted,

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Date: October 21, 2005